

ABSTRACT

This invention provides pesticidally effective compositions related to a novel endophytic fungi named *Muscodor*. Specifically, the invention relates to commercially useful formulations of *Muscodor* and methods for preparing such formulations. It also provides various synthetic pesticidal mixtures of volatile organic compounds isolatable from *Muscodor* grown on various substrates. Also provided are methods for inhibiting the growth of organisms, such as microbes, insects, and nematodes by exposing such organisms or the habitats thereof to the above *Muscodor*-related compositions.